

### **REMARKS**

Claims 66-69 and 137 were previously pending, with claims 69, 70, 74-87, and 98 being withdrawn. By this response, Applicant amends claims 66-70, 72, 75, and 137. As a result, claims 66 - 68, 71-72, 88-97, 99, and 137 are pending for examination with claims 66 and 137 being independent claims. No new matter is added.

#### ***Rejection under 35 U.S.C. §102 an d35 U.S.C. §103 are overcome***

##### **Distinctions over Chan are clarified**

Claims 66-68, 71-73, 88-99 and 137 stand rejected under 35 U.S.C. §102 as being anticipated by Chan (U.S. Patent No. 6,355,420). Claims 67-68 stand rejected under 35 U.S.C. §103 as being unpatentable over Chan.

Independent claim 66 is amended to recite calculating (rather than identifying) a proportion of the first emission signal that corresponds to a distance of the detection zone traversed by the label of the first unit specific marker at the first timing event. (Emphasis added). Additionally, a proportion of the second emission signal that corresponds to a distance of the detection zone traversed by the label of the second unit specific marker at the second timing event is calculated (rather than identified). Claim 66 now also recites that the separation distance is determined at a precision greater than the zone distance. Independent claim 137 is also amended to recite “calculating” instead of “identifying”. Dependent claims are amended to include language that is consistent with the claims from which they depend.

Support for the above described amendments may be found at least at the abstract, paragraphs 0008, 0093, 0115 - 0117, and the figures. In particular, paragraph 0093 describes the improvement in precision for an embodiment where the bin size is equal to the zone distance, as described in paragraph 0116.

Chan merely discloses determining whether or not a label is present in a detection zone, and then measuring time that elapses until another label is present in a detection zone. There is no teaching or suggestion, either explicitly or inherent, of calculating a proportion of an emission signal that corresponds to a distance of a detection zone traversed by a label of a unit specific marker at a timing event.

Gilmanshin discloses measuring the distance between two or more units of unit-specific makers in the same molecule (col. 14, lines 33-35), but uses an autocorrelation function to do so. There is no teaching or suggestion in Gilmanshin of calculating a proportion of an emission signal that corresponds to a distance of a detection zone traversed by a label of a unit specific marker at a timing event.

Neither of Chan nor Gilmanshin not teach all the limitations and thus cannot anticipate or render obvious the rejected claims.

Reconsideration and withdrawal of this rejection is respectfully requested.

**CONCLUSION**

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825, under Docket No. C0989.70037US00.

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Respectfully submitted,

By 

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